

What is claimed is:

1. An information outputting apparatus comprising:

an outputting device for outputting main information
5 composed of a plurality of partial information to an
information recording apparatus together with order
information, which shows configuration order of said
respective partial information in said main information,
along a reproduction time series in said main information;

10 and

a controlling device for controlling the outputting
device so as to repeatedly perform said outputting
operation with respect to the same said main information
and said order information.

15 2. The information outputting apparatus according to
claim 1, wherein said information recording apparatus
records said outputted main information in a recording
medium by using said outputted order information so that
20 said main information is reproduced on the basis of said
order information.

3. The information outputting apparatus according to
claim 1, wherein said main information is compressed having
25 no relation to a time axis.

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4. The information outputting apparatus according to claim 1, wherein said outputting apparatus further comprises a distributing device for distributing said main information and said order information to said information recording apparatus through telecommunication lines.

5. The information outputting apparatus according to claim 4, wherein said telecommunication lines comprise at least one of a cable television circuit, the Internet lines, satellite broadcasting circuit and ground-based digital broadcasting circuit.

6. The information outputting apparatus according to claim 1, wherein said outputting device also outputs reproduction controlling information for controlling a reproduction manner of said main information recorded in said recording medium to said information recording apparatus together with said main information and said order information.

7. The information outputting apparatus according to claim 1, wherein said main information includes regulating information for regulating the number of times for copying after said main information is recorded in said recording medium,

said outputting device further comprises a changing device for uniformly changing said respective order

information in association with a content of the included regulating information and generating a changing order information, and

said outputting device outputs said changing order information to said information recording apparatus together with said main information.

8. The information outputting apparatus according to claim 1, wherein said partial information comprises a information sector, and

said order information is any one of sector address information in association with said respective information sectors and relative information which is related to said sector address information.

9. An information recording apparatus for recording main information and order information, which are outputted from an information outputting apparatus, in a recording medium, wherein the information outputting apparatus comprises: an outputting device for outputting said main information composed of a plurality of partial information to said information recording apparatus together with said order information, which shows configuration order of said respective partial information in said main information, along a reproduction time series in said main information; and a controlling device for controlling the outputting device so as to repeatedly perform said outputting

operation with respect to the same said main information and said order information,

wherein said information recording apparatus comprises:

5 an obtaining device for obtaining said outputted main information and said outputted order information; and

a recording device for recording said obtained main information in said recording medium by using said obtained order information in the order of obtaining.

10 10. The information recording apparatus according to claim 9, wherein address information showing a recording position on said recording medium is recorded in advance on said recording medium, and

15 said recording device records said partial information in association with said order information on a recording position on said recording medium, which is indicated by said address information associated with said obtained order information.

20 11. The information recording apparatus according to claim 9, wherein said partial information comprises a information sector, and

25 said order information is any one of sector address information in association with said respective information sectors and relative information which is related to said sector address information.

12. An information outputting method comprising:

an outputting process for outputting main information composed of a plurality of partial information to an information recording apparatus together with order information, which shows a configuration order in said main information of said respective partial information, along a reproduction time series in said main information; and

a controlling process for controlling said outputting process so as to repeatedly perform said outputting process with respect to the same said main information and said order information.

13. The information outputting method according to claim 12, wherein said information recording apparatus records said outputted main information in a recording medium by using said outputted order information so that said main information is reproduced on the basis of said order information.

14. The information outputting method according to claim 12, wherein said main information is compressed having no relation to a time axis.

15. The information outputting method according to claim 12, wherein said outputting process further comprises a distributing process for distributing said main information

and said order information to said information recording apparatus through the telecommunication lines.

16. The information outputting method according to claim 12, wherein said main information includes regulating information for regulating the number of times for copying after said main information is recorded in said recording medium;

said outputting process further comprises a changing process for uniformly changing said respective order information in association with a content of the foregoing included regulating information and generating changing order information; and

said changing order information is outputted to said information recording apparatus together with said main information in said outputting process.

17. The information outputting method according to claim 12, wherein said partial information comprises a information sector, and

said order information is any one of sector address information in association with said respective information sectors and relative information which is related to said sector address information.

18. An information recording method for recording main information and order information, which are outputted by

information outputting method, wherein said information outputting method comprises: an outputting process for outputting said main information composed of a plurality of partial information to an information recording apparatus together with said order information, which shows a configuration order in said main information of said respective partial information, along a reproduction time series in said main information; and a controlling process for controlling said outputting process so as to repeatedly perform said outputting process with respect to the same said main information and said order information,

wherein the recording method comprises the processes of:

obtaining said outputted main information and said outputted order information; and

recording said obtained main information in said recording medium by using said obtained order information in the order of obtaining.

19. The information recording method according to claim 18, wherein address information showing a recording position on said recording medium is recorded in advance on said recording medium, and

said partial information in association with said order information is recorded on a recording position on said recording medium, which is indicated by said address

information associated with said obtained order information, in said recording process.

20. The information recording method according to claim 5 18, wherein said partial information comprises a information sector, and

said order information is any one of sector address information in association with said respective information sectors and relative information which is related to said 10 sector address information.

21. An information recording medium, in which an information outputting controlling program recorded so as to be read by a computer included in an information 15 outputting apparatus, the program making the computer function as:

an outputting device for outputting main information composed of a plurality of partial information to an information recording apparatus together with order 20 information, which shows a configuration order in said main information of said respective partial information, along a reproduction time series in said main information; and

a controlling device for controlling said outputting device so as to repeatedly perform said outputting 25 operation with respect to the same said main information and said order information.

22. The information recording medium according to claim
21, wherein said information recording apparatus records
said outputted main information in a recording medium by
using said outputted order information so that said main
5 information is reproduced on the basis of said order
information.

23. The information recording medium according to claim
21, wherein said main information is compressed having no
10 relation to a time axis.

24. The information recording medium according to claim
21, wherein said program makes the computer further
function as a distributing device for distributing said
15 main information and said order information to said
information recording apparatus through the
telecommunication lines.

25. The information recording medium according to claim
20 21, wherein said main information includes regulating
information for regulating the number of times for copying
after said main information is recorded in said recording
medium, and

said program makes said computer further function as:
25 a changing device for uniformly changing said respective
order information in association with a content of the
foregoing included regulating information and for

outputting said changing order information to said information recording apparatus together with said main information.

- 5 26. The information recording medium according to claim 21, wherein address information showing a recording position on said recording medium is recorded in advance on said recording medium, and

10 said partial information in association with said order information is recorded on a recording position on said recording medium, which is indicated by said address information associated with said obtained order information, in said recording process.

- 15 27. An information recording medium in which an information recording controlling program is recorded so as to be read by a computer included in a recording controlling apparatus, wherein said recording controlling apparatus records main information and order information, 20 which are outputted from an information outputting apparatus, in a recording medium, wherein the information outputting apparatus comprises: an outputting device for outputting said main information composed of a plurality of partial information to said information recording apparatus 25 together with said order information, which shows configuration order of said respective partial information in said main information, along a reproduction time series

in said main information; and a controlling device for controlling the outputting device so as to repeatedly perform said outputting operation with respect to the same said main information and said order information,

5 wherein said program makes the computer function as:
 an obtaining device for obtaining said outputted main information and said outputted order information; and
 a recording device for recording said obtained main information in said recording medium by using said obtained
10 order information in the order of obtaining.

28. The information recording medium according to claim 27, wherein an address information showing a recording position on said recording medium is recorded in advance on
15 said recording medium, and

 said recording device records said partial information in association with said order information on a recording position on said recording medium, which is indicated by said address information associated with said
20 obtained order information.

29. The information recording medium according to claim 27, wherein said partial information comprises a information sector, and

25 said order information is any one of sector address information in association with said respective information

sectors and relative information which is related to said sector address information.

30. An information outputting recording system
5 comprising:

(a) an information outputting apparatus comprising:
an outputting device for outputting main information
composed of a plurality of partial information to an
information recording apparatus together with order
10 information, which shows a configuration order in said main
information of said respective partial information, along a
reproduction time series in said main information; and a
controlling device for controlling the outputting device so
as to repeatedly perform said outputting operation with
15 respect to the same said main information and said order
information; and

(b) said information recording apparatus
comprising: an obtaining device for obtaining said
outputted main information and said outputted order
20 information; and a recording device for recording said
obtained main information in said recording medium in the
order of obtaining by using said obtained order
information.

25 31. A computer data signal embodied in a carrier wave and
representing a series of instructions which cause a
computer to perform steps to execute an outputting

controlling process in an information outputting apparatus,
the steps comprising:

an outputting step for outputting main information
composed of a plurality of partial information to an
5 information recording apparatus together with order
information, which shows a configuration order in said main
information of said respective partial information, along a
reproduction time series in said main information; and

10 a controlling step for controlling said outputting
device so as to repeatedly perform said outputting
operation with respect to the same said main information
and said order information.

32. A computer data signal embodied in a carrier wave and
15 representing a series of instructions which cause a
computer to perform steps to execute a recording
controlling process in a recording controlling apparatus,
wherein said recording controlling apparatus records main
information and order information, which are outputted from
20 an information outputting apparatus, in a recording medium,
wherein the information outputting apparatus comprises: an
outputting device for outputting said main information
composed of a plurality of partial information to said
information recording apparatus together with said order
25 information, which shows configuration order of said
respective partial information in said main information,
along a reproduction time series in said main information;

